

## Psychosocial care for persons affected by emergencies and major incidents: a Delphi study to determine the needs of professional first responders for education, training and support

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**PSYCHOSOCIAL CARE FOR PERSONS AFFECTED BY EMERGENCIES AND  
MAJOR INCIDENTS: A DELPHI STUDY TO DETERMINE THE NEEDS OF  
PROFESSIONAL FIRST RESPONDERS FOR EDUCATION, TRAINING AND  
SUPPORT**

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## **ABSTRACT**

### **Background**

The role of ambulance clinicians in providing psychosocial care in major incidents and emergencies is recognized in recent Department of Health guidance. The study described in this paper identified NHS professional first responders' needs for education about survivors' psychosocial responses, training in psychosocial skills, and continuing support.

### **Method**

Ambulance staff participated in an online Delphi questionnaire, comprising 74 items (Round 1) on 7-point Likert scales. Second- and third-round participants each received feedback based on the previous round, and responded to modified versions of the original items and to new items for clarification.

### **Results**

One hundred and two participants took part in Round 1; 47 statements (64%) achieved consensus. In Round 2, 72 people from Round 1 participated; 15 out of 39 statements (38%) achieved consensus. In Round 3, 49 people from Round 2 participated; 15 out of 27 statements (59%) achieved consensus. Overall, there was consensus in the following areas: 'psychosocial needs of patients' (consensus in 34/37 items); 'possible sources of stress in your work' (8/9); 'impacts of distress in your work' (7/10); 'meeting your own emotional needs' (4/5); 'support within your organization' (2/5); 'needs for training in psychosocial skills for patients' (15/15); 'my needs for psychosocial training and support' (5/6).

### **Conclusion**

Ambulance clinicians recognize their own education needs and the importance of their being offered psychosocial training and support. The authors recommend that, in order to meet patients' psychosocial needs effectively, ambulance clinicians are provided with

education and training in a number of skills and their own enhanced psychosocial support should be enhanced.

## INTRODUCTION

This paper describes a study through which the authors intended to identify the needs of NHS staff, who are likely to be first responders in emergencies of all kinds as well as major incidents, for education about survivors' psychosocial responses, training in psychosocial skills, and continuing support. The term '*psychosocial*' refers to:

*the psychological and social processes that occur within and between people and across groups of people. (p. 9).*<sup>1</sup>

Persons involved in major incidents, emergencies and disasters have psychosocial as well as physical needs.<sup>2 3</sup> This applies to professional first responders as well as patients.<sup>4-6</sup> Both groups have sources of psychosocial resilience, which should be actively sustained in emergency planning.<sup>7-10</sup>

The authors of this paper were unable to locate any studies of professional first responders' understandings of the psychosocial needs of patients in emergencies or any studies of their needs for education and training in psychosocial care. Indeed, a recent review calls for more research in these areas.<sup>5</sup>

The importance of this topic is shown by recent Department of Health (DH) guidance<sup>1</sup> and recommendations by the Emergency Planning Clinical Leadership Advisory Group, which point to the role of ambulance clinicians in delivering psychosocial care. These recommendations on psychosocial care also reflect principles agreed in 2009,<sup>11</sup> and which are set out in recent NATO and Euro-Atlantic Partnership Council Guidance,<sup>12</sup> in the European Union's traumatic stress network project,<sup>13</sup> as well as in advice from the National Institute for Health and Clinical Excellence.

Given the need for an evidence-base for specific recommendations on psychosocial care, and given also the limited existing literature, the authors carried out a Delphi study of the understandings and needs of professional first responders in ambulance services.

## METHODS

The Delphi method involves consulting a group of experts or relevant practitioners about their views on a specific topic, in two or more rounds, in order to determine whether a consensus is possible. The method was originally developed as a decision-making tool by the RAND corporation,<sup>14</sup> but has since become an established research methodology in a range of policy settings.<sup>15</sup> In particular, it is used for topics about which there is insufficient existing knowledge or research evidence to provide guidance on policy and practice.

### **Developing the statements**

The authors of this paper ran focus groups on the topic of psychosocial care in emergencies and major incidents in order to develop questionnaire items for the first round of the Delphi study

#### **Focus groups**

We ran six focus groups with staff of the London Ambulance Service (LAS) and North-West Ambulance Service (NWAS) from the following roles: Helicopter Emergency Medical Services (HEMS), Medical Emergency Response Incident Teams (MERIT), Hazardous Area Response Teams (HART), and operational wheeled ambulance staff. The authors sought the views of staff from a spectrum of different employment areas and experiences in pre-hospital care; people were recruited from HEMS, HART and MERIT specifically since they are likely to be experienced staff who with considerable breadth and depth of expertise as ambulance clinicians and wide awareness of patients' psychosocial needs. There were between three and five participants in each group. Necessarily, the focus group discussions covered aspects of their day-to-day work in which psychosocial care is relevant. The authors expected that the clinicians' daily experiences informed their actions in emergencies and major incidents, and vice versa (for example, daily stress at work can affect how staff respond to patients' psychosocial needs in an emergency).

Each focus group was recorded and the recordings were transcribed (information was omitted that could identify participants). The six transcripts were subjected to interpretative phenomenological analysis.<sup>16</sup> This analysis produced a long list of items

which were translated into statements for the first round of the Delphi process. They were organized into seven topic areas: *a.* psychosocial needs of patients; *b.* possible sources of stress in your work; *c.* impacts of distress in your work; *d.* meeting your own emotional needs; *e.* support within your organization; *f.* needs for training in psychosocial skills for patients; and *g.* my needs for psychosocial training and support.

### Delphi design

The online survey tool available from Bristol Online Surveys<sup>17</sup> was used to present the statements in the form of a questionnaire. Participants were invited to respond on 7-point Likert scales, anchored by 'strongly agree' and 'strongly disagree' (see Figure 1, below).

---Insert Figure 1 about here---

### Delphi participants

Participants from the following service roles were approached through local contacts in the LAS and the NWAS: wheeled ambulance services; air ambulance services; MERIT; HART; HEMS; and doctors who are members of the British Association for Immediate Care (BASICS).

### Procedure

The local contacts in each service sent potential participants an e-mail message containing a link to the online survey, which began with a short introduction to the research and a set of demographic items. Participants were asked to respond quantitatively to, and comment on, all of the statements in the survey.

### Analysis

Consensus on agreement with each statement was operationalized as a mean score of 4.8 or above plus 67% or more respondents scoring 5 or above, based on the example of Bisson et al. (2010).<sup>18</sup> Consensus on disagreement was operationalized as a mean score of 3.2 or below plus 67% of respondents scoring 3 or below.

SPSS 16 for Windows was used to determine level of consensus and any demographic differences.

## RESULTS

### Round 1

Around 300 potential participants were invited to take part from the LAS, and around 170 were invited from NWAS. The survey was open for one month, during which a number of reminders were sent to the target population. Ninety-two responded from the LAS, a response rate of 31%, while 12 responded from the NWAS, a response rate of 7%.

The demographic characteristics of the sample are presented in Table 1, below.

|                   | Round 1 |      | Round 2 |      | Round 3 |      |
|-------------------|---------|------|---------|------|---------|------|
| Characteristic    | N       | %    | N       | %    | N       | %    |
| <b>Gender</b>     |         |      |         |      |         |      |
| Male              | 67      | 65.7 | 49      | 68.1 | 32      | 65.3 |
| Female            | 34      | 33.3 | 22      | 30.6 | 16      | 32.7 |
| No response       | 1       | 1.0  | 1       | 1.4  | 1       | 2.0  |
| <b>Location</b>   |         |      |         |      |         |      |
| LAS               | 90      | 88.2 | 61      | 84.7 | 41      | 83.7 |
| NWAS              | 12      | 11.8 | 9       | 12.5 | 8       | 16.3 |
| Other*            | 0       | 0.0  | 2       | 2.8  | 0       | 0.0  |
| <b>Experience</b> |         |      |         |      |         |      |
| 1 year or less    | 2       | 2.0  | 2       | 2.8  | 1       | 2.0  |



|                         |    |      |    |      |    |      |
|-------------------------|----|------|----|------|----|------|
| <b>2-4 years</b>        | 19 | 18.6 | 14 | 19.4 | 10 | 20.4 |
| <b>5-8 years</b>        | 16 | 15.7 | 12 | 16.7 | 8  | 16.3 |
| <b>8-12 years</b>       | 21 | 20.6 | 15 | 20.8 | 11 | 22.4 |
| <b>12-20 years</b>      | 29 | 28.4 | 18 | 25.0 | 12 | 24.5 |
| <b>20 years or more</b> | 15 | 14.7 | 11 | 15.3 | 7  | 14.3 |

#### Entry into the ambulance service

|  |    |      |    |      |    |      |
|--|----|------|----|------|----|------|
| <b>University</b>                      | 16 | 15.7 | 11 | 15.3 | 8  | 16.3 |
| <b>Non-ambulance medical</b>           | 23 | 22.5 | 17 | 23.6 | 12 | 24.5 |
| <b>Non-emergency ambulance service</b> | 14 | 13.7 | 9  | 12.5 | 7  | 14.3 |
| <b>Military</b>                        | 6  | 5.9  | 4  | 5.6  | 1  | 2.0  |
| <b>Other</b>                           | 37 | 36.3 | 25 | 34.7 | 18 | 36.7 |
| <b>No response</b>                     | 6  | 5.9  | 6  | 8.3  | 3  | 6.1  |

#### Qualification

|   |    |      |    |      |    |      |
|---|----|------|----|------|----|------|
| <b>Paramedic</b>                        | 54 | 52.9 | 36 | 50.0 | 27 | 55.1 |
| <b>Technician</b>                       | 15 | 14.7 | 10 | 13.9 | 5  | 10.2 |
| <b>Doctor – consultant/GP</b>           | 6  | 5.9  | 6  | 8.3  | 4  | 8.2  |
| <b>Doctor – post-foundation trainee</b> | 3  | 2.9  | 3  | 4.2  | 3  | 6.1  |
| <b>Manager with clinical training</b>   | 19 | 18.6 | 14 | 19.4 | 8  | 16.3 |
| <b>Other</b>                            | 5  | 4.9  | 3  | 4.2  | 2  | 4.1  |

#### Current Role (i)

|                   |    |      |    |      |    |      |
|-------------------|----|------|----|------|----|------|
| <b>Ambulance</b>  | 33 | 32.4 | 14 | 19.4 | 11 | 22.4 |
| <b>Motorcycle</b> | 3  | 2.9  | 3  | 4.2  | 2  | 4.1  |
| <b>Helicopter</b> | 1  | 1.0  | 1  | 1.4  | 1  | 2.0  |

|   |    |      |    |      |    |      |
|---|----|------|----|------|----|------|
| Rapid response vehicle (including paramedic rapid response) | 6  | 5.9  | 6  | 8.3  | 5  | 10.2 |
| BASICS (or equivalent)                                      | 4  | 3.9  | 4  | 5.6  | 3  | 6.1  |
| Multiple  | 42 | 41.2 | 34 | 47.2 | 24 | 49.0 |
| Other   | 13 | 12.7 | 10 | 13.9 | 3  | 6.1  |
| <b>Current Role (ii)**</b>                                  |    |      |    |      |    |      |
| Frontline responder   |    |      | 36 | 50.0 | 23 | 46.9 |
| Doctor  |    |      | 2  | 2.8  | 1  | 2.0  |
| Manager   |    |      | 10 | 13.9 | 5  | 10.2 |
| Senior manager  |    |      | 4  | 5.6  | 2  | 4.1  |
| Multiple  |    |      | 19 | 26.4 | 17 | 34.7 |
| Other   |    |      | 1  | 1.4  | 1  | 2.0  |
| <b>Experience of major incident</b>                         |    |      |    |      |    |      |
| Yes   | 49 | 48.0 | 38 | 52.8 | 24 | 49.0 |
| No  | 52 | 51.0 | 34 | 47.2 | 25 | 51.0 |
| No response   | 1  | 1.0  | 0  | 0.0  | 0  | 0.0  |

\*These respondents indicated Midlands but provided LAS e-mail contact addresses.

\*\* This demographic item was not included in the Round 1 questionnaire.

### Table 1: Participant demographics

There were no significant demographic differences in participants' responses to items in Round 1 except for 3 items about the ability of their employers to provide support, about which managers tended to be more positive than non-managers.

The participants reached consensus on 47 (64%) of the 74 statements. The 3 statements with which the participants agreed most strongly all concerned patients'

psychosocial needs: 'providing reassurance is a necessary part of our response' (mean score = 6.50, per cent agreement = 87.20); 'in order to reduce patients' distress, it is important to explain what we are doing' (mean score = 6.47, per cent agreement = 90.10); and 'I adjust the way I talk to fit each particular patient' (mean score = 6.41, per cent agreement = 90.20). There were 2 statements with which participants consensually disagreed: 'bystanders who are not family or friends should be told of the plan for the patient' (mean score = 2.68, per cent disagreement = 72.50) and 'all jobs are equally stressful' (mean score = 2.08, per cent disagreement = 90.20). All items are listed in Table 2 in the Appendix.

## **Round 2**

The research team based rewording of the 27 items on which participants failed to reach consensus in Round 1 on their responses and qualitative comments. The intention was to make these items clearer. Round 2 of the survey comprised these reworded items, plus 13 new items that the authors introduced for disambiguation. Individual e-questionnaires were constructed for each participant in order to give each respondent feedback on both their own score and the sample's average score for each item. Figure 2 offers an example of how the questionnaire appeared to participants.

---Insert Figure 2 about here---

Round 2 of the survey was sent to the 102 respondents to Round 1 who could be verified as employees of LAS or NWAS and who had provided a functional e-mail address. Round 2 was open for 2 weeks. Seventy-two completed questionnaires were returned, a response rate of 70%. The demographic profile of participants matched that in Round 1 (see Table 1). There were no significant demographic differences in the responses, except for 3 about the ability of employers to provide support, about which managers tended to be more positive than non-managers.

Participants reached consensus on 15 (37.5%) of the 40 statements. The 3 statements with which participants agreed most strongly all concerned their needs for psychosocial training and support: 'it would be useful for members of the ambulance service to learn to recognize stress in themselves' (mean score = 5.79, per cent agreement = 83.4);

‘guidance on how to help colleagues who are stressed would be useful for staff of the ambulance service’ (mean score = 5.79, per cent agreement = 84.7); and ‘training to be able to recognize stress in colleagues would be useful for staff of the ambulance service’ (mean score = 5.69, per cent agreement = 82.0). Participants consensually disagreed about none of the statements. All items are listed in Table 3 in the Appendix.

### **Round 3**

The 25 statements on which participants failed to achieve consensus in Round 2 were re-worded for Round 3, and 2 new statements were introduced for clarification. Round 3 of the survey was sent to the 72 respondents to Round 2. Forty-nine participants responded in the 2 weeks for which the survey was open, a response rate of 68%. The demographic profile matched that in Rounds 1 and 2 (see Table 1). There were no significant demographic differences in the responses, except for 3 items on levels of experience and professional knowledge, about which doctors agreed more strongly than non-doctors.

Participants achieved consensus on 16 of the 27 statements. Two of the 3 statements with which participants agreed most strongly concerned how they might deal with impacts of distress in their work: ‘sometimes it helps me to know what happens to a patient after I have taken them to hospital’ (mean score = 5.85, per cent agreement = 87.80) and ‘I would like to learn more about what to do when parents of injured or sick children are distressed’ (mean score = 5.73, per cent agreement = 87.70). The third statement concerned their understandings of patients’ psychosocial needs: ‘I have experience of dealing with patients who understand the seriousness of their condition but don’t want to cause a fuss’ (mean score = 5.59, per cent agreement = 81.6). Participants achieved a consensus of disagreement on only one item: ‘I am satisfied with the service that patients we deal with receive from the mental health services’ (mean score = 2.30, per cent disagreement = 79.60). All statements from Round 3 are presented in Table 4 (see Appendix).

## **DISCUSSION**

### **Principal findings**

The participants reached consensus on most statements, indicating the shared views of the sample. The figure of 64% of items about which participants reached consensus in Round 1 is broadly in line with comparable Delphi survey studies.<sup>18 19</sup> They reached consensus about most of the items in each of the 7 statement areas that the authors used to organize the questionnaire in the three rounds. The only exception to this pattern was for the items on 'support within your organization', about which there was a split between managers and non-managers.

#### Patients' psychosocial needs

Over the 3 rounds, there was consensus about 34/37 statements relating to patients' needs. Participants agreed that: patients have psychosocial as well as medical needs; attending to these psychosocial needs can improve outcomes; providing reassurance is a necessary part of the professional first responder's role; and patients' psychosocial needs can be gauged from their behaviour. Participants recognised a large number and variety of forms of support including showing empathy and explaining professional first responders' actions. They also agreed that their abilities to respond adequately to patients' distress vary by patient and by type of incident. They recognized that patients' psychosocial needs exist within social relations, which could contribute to, or detract from, positive outcomes through their effects on patients' emotional states. There was agreement that the emotional needs of people who are close to patients must be addressed and that relatives sometimes experience frustration. There was only qualified agreement among participants that they could distinguish between patients' distress and psychiatric disorder. There was less consensus about the extent to which they knew when patients need psychiatric help.

#### Possible sources of stress in your work

Participants achieved consensus about 8/9 statements on this topic over the 3 rounds. They disagreed with the suggestion that all jobs are equally stressful. Rather, they agreed that certain identifiable features of their work were particularly stressful, including lack of down-time, actions of managers, and the 'target culture'.

#### Impacts of distress in your work

Participants achieved consensus on 7/10 statements about this topic over the 3 rounds. They agreed that: jobs that involve sick or injured children could be stressful; responding to call-outs to patients with serious, but not life-threatening, injuries could be as stressful as calls to patients with life-threatening injuries; and professional first responders' families notice and suffer when they are stressed. There was less consensus among participants about their knowing what to do when children are distressed.

#### Meeting your own emotional needs

Participants achieved consensus on 4/5 statements about this topic over the 3 rounds. Respondents agreed that sharing experiences with colleagues helped with emotionally difficult jobs. Knowing they had made a difference and receiving thanks from the public were also helpful.

#### Support within your organization

Participants achieved consensus on 2/5 statements about this topic in the 3 rounds. They said that they could tell when colleagues were stressed and they knew what to do in these situations. But, there was no consensus on the extent to which line managers provided adequate psychosocial support or that existing support services (including 'LINC', the LAS peer support network) were helpful.

#### Needs for training in psychosocial skills for patients

Participants achieved consensus in all 15 statements about this topic in the 3 rounds. They agreed that training and greater knowledge would be useful in the following areas: dealing with distress in patients, calming distressed patients; dealing with children who are distressed; talking to patients who are dying; telling relatives that someone has died; distinguishing distress from mental health problems; brief assessment of patients' psychosocial needs; conflict de-escalation; listening skills; dealing with parents of sick or injured children who are distressed; and dealing with distressed relatives and bystanders.

#### My needs for psychosocial training and support

Participants achieved consensus in 5/6 statements on this topic over the 3 rounds. They agreed in recommending that support, education and training for staff of ambulance services are improved through: them learning how to recognize stress in themselves and in their colleagues; guidance on helping colleagues who are stressed; peer support programmes; training in listening skills and other simple psychosocial techniques for peer supporters.

### **Strengths and weaknesses**

Since the aim of the study was to produce evidence, or otherwise, of the needs of ambulance staff for education on psychosocial topics, the possibility that this self-selected sample may have been attuned already to these issues was an advantage, because the authors thought that they would be more forthcoming about these needs than others.

The authors' use of statements in the Delphi survey that had been made by participants in the focus groups resulted in those statements being based on the participants' own language and concepts.

Some people argue that the anonymous format of the Delphi method allows respondents to express their views freely.<sup>18</sup> In the present case, it seemed that participants sometimes expressed strongly-felt, long-standing criticisms of their management that they might not have voiced if they were identifiable.<sup>20</sup>

### **Implications**

The results of this study suggest recommendations for any programme of education and training about psychosocial care for health carers who are first responders. First, training curricula should build upon the strength of participants' recognition that emergencies, and major incidents, have psychosocial dimensions and that psychosocial care is a necessary part of their work. Second, our participants agreed about their needs for training to better distinguish patients' distress from mental health problems. The authors recommend that employers provide education in this area.<sup>21</sup> This requires them to assist the staff of responding services to develop greater awareness of the

range of reactions displayed by people in emergencies and major incidents.<sup>7 22</sup> Third, education initiatives should build upon professional first responders' recognition that patients' psychosocial needs exist in social contexts, and that the responses of members of their families and others can contribute to patients' psychosocial wellbeing,<sup>23 24</sup> and should be addressed. Fourth, education should include specific provision for developing practitioners' skills to meet the psychosocial needs of sick, injured or distressed children, and for dealing with their parents' needs.<sup>24-26</sup> Finally, training and education programmes should build upon professional first responders' recognition that they too have psychosocial needs and can develop their skills to address these needs collectively.

## **CONCLUSION**

Professional first responders, such as ambulance clinicians, provide psychosocial care as well as physical care. The Delphi process reported in this paper provides substantial evidence that ambulance clinicians recognize the importance of psychosocial care, want to do more for their patients, and recognize their consequential needs for education and social support.

## **TABLES AND FIGURES**

In separate files

Figure and table legends:

**Figure 1 Example statement and response scale from Round 1**

**Figure 2 Example Round 2 feedback and statements**

**Table 1 Participant demographics**

## **Contributors**

RW was the Chief Investigator and led design of the project and the work to achieve approval for it from the NHS Research Ethics Service, NHS R&D approval, and



clearance for conducting the work from the two NHS sites. He and VK, on behalf of the sponsor, supervised all stages of research design and project planning. JD was the Principal Investigator and led on all stages in delivering this research project including conducting the focus groups and the three-stage Delphi survey, and interpreting the results. JD was also the data custodian. JN contributed to survey design. DN provided the statistical analysis. CD and DW provided advice on research design, ethics and recruitment.

## **Acknowledgements**

The following people assisted in designing and running the focus groups: Lauren Greenwood, Ellen Vandenbogaerde, Sanjeedah Choudhury and Susana Monteiro. Candace Gilles-Wright was the project manager on behalf of the Royal College of Psychiatrists. Sharon Gage was responsible for participant recruitment on behalf of the College. Jason Killens was a local contact for the ambulance services.

## **Competing interests**

The authors have no competing interests to declare.

## **Funding**

This study was funded by the Department of Health/Royal College of Psychiatrists. Representatives of the sponsors oversaw the design and conduct of the study at all stages, including analysis and reporting. The study was conducted and designed by researchers at the University of Sussex. The sponsors had no contact with the participants.

## **Ethics approval**

Ethical clearance for the study was given by the South London Research Ethics Committee 3 of the National Research Ethics Service in December 2010 (Reference number 10/H0808/149). SSI approval was granted and a R&D certificate issued from the London Ambulance Service and the North West Area Ambulance Service in January 2011. All participants gave informed consent before participating.

## Data sharing statement

Participants gave informed consent for their participation on the understanding that the data would be anonymised so that risk of their identification is low. The potential benefits of sharing the raw data outweigh the potential harms because participants had to be assured that they could speak freely about their organization.

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